**Exercise 1** *Let $f$ be a function defined by $f(x) = x^2$ and $g$ be a function defined by $g(x) = -5x+3$. Use the pair of functions $f$ and $g$ to find the following values, if they exist. If the value does not exist, enter DNE.*

(a) $(f+g)(2) = \boxed{-3}$

(b) $(f-g)(-1) = \boxed{-7}$

(c) $(g-f)(1) = \boxed{-3}$

(d) $(fg)\left(\frac{1}{2}\right) = \boxed{\frac{1}{8}}$

(e) $\left(\frac{f}{g}\right)(0) = \boxed{0}$

(f) $\left(\frac{g}{f}\right)(-2) = \boxed{\frac{13}{4}}$

 